

AMENDMENTS TO THE CLAIMS

Claim 1 (Previously Presented): A method of using a radiation-curable composite layered sheet or film, the method comprising coating the sheet or film of claim 13 on a surface.

Claim 2 (Previously Presented): The sheet or film as claimed in claim 13, wherein the outer layer is transparent.

Claim 3 (Previously Presented): The sheet or film as claimed in claim 13, further comprising a coloring interlayer between the at least one substrate layer and the outer layer.

[Claim 4 (Canceled)]

Claim 5 (Previously Presented): The sheet or film as claimed in claim 13, wherein the radiation-curable composition is in a noncrosslinked state.

Claim 6 (Previously Presented): The sheet or film as claimed in claim 13, wherein the radiation-curable composition comprises polymers containing ethylenically unsaturated groups, alone or as a mixture with low molecular mass, radiation-curable compounds, or mixtures of saturated, thermoplastic polymers with ethylenically unsaturated compounds.

Claim 7 (Previously Presented): The sheet or film as claimed in claim 13, wherein the at least one substrate layer comprises a layer comprising a thermoplastic polymer selected from the group consisting of polymethyl methacrylates, polybutyl methacrylates, polyurethanes, polyethylene terephthalates, polybutylene terephthalates, polyvinylidene fluorides, polyvinyl chlorides, polyesters, polyolefins, polyamides, polycarbonates, acrylonitrile-butadiene-styrene (ABS) polymers, acrylic-styrene-acrylonitrile (ASA) copolymers, acrylonitrile-ethylene-propylene-diene-styrene copolymers (A-EPDM), polyether imides, polyether ketones, polyphenylene sulfides, polyphenylene ethers and mixtures thereof.

Claim 8 (Previously Presented): A method of making a radiation-curable composite layered sheet or film, the method comprising
extruding a radiation-curable composition comprising a binder having a glass transition temperature of more than 40°C; and
producing the film or sheet of claim 13.

Claim 9 (Previously Presented): The method as claimed in claim 8, wherein the extruding comprises coextruding at least one further layer with the radiation-curable composition.

Claim 10 (Previously Presented): A method of using a radiation-curable composite layered sheet or film, the method comprising
adhesively bonding the sheet or film of claim 13 to a surface; and
curing the outer layer of the bonded sheet or film by means of radiation.

Claim 11 (Currently Amended): A method of using a radiation-curable composite layered sheet or film, the method comprising
thermoforming the sheet or film of claim 13 in a thermoforming mold;
injection-backmolding the reverse of the at least one substrate layer with a polymer composition; and
radiation-curing the outer layer after the thermoforming or after the injection backmolding.

Claim 12 (Previously Presented): A coated molding obtainable by a process comprising
coating the sheet or film of claim 13 on a molding; and
curing the outer layer of the coated sheet or film by means of radiation.

Claim 13 (Previously Presented): A self-supporting, radiation-curable, composite layered sheet or film comprising
at least one substrate layer, and
one outer layer, and
a thermoplastic interlayer between the at least one substrate layer and the outer layer,

wherein

the thermoplastic interlayer comprises a polymer selected from the group consisting of polymethyl methacrylates, polybutyl methacrylates, polyethylene terephthalates, polybutylene terephthalates, polyvinylidene fluorides, polyvinyl chlorides, polyolefins, polyamides, polycarbonates, acrylonitrile-butadiene-styrene (ABS) polymers, acrylic-styrene-acrylonitrile (ASA) copolymers, acrylonitrile-ethylene-propylene-diene-styrene copolymers (A-EPDM), polyether imides, polyether ketones, polyphenylene sulfides, polyphenylene ethers and mixtures thereof; and

the outer layer comprises a radiation-curable composition comprising a binder having a glass transition temperature of more than 40°C.

[Claims 14-16 (Canceled)]

Claim 17 (Previously Presented): The sheet or film as claimed in claim 13, wherein the binder has a glass transition temperature in a range of from 40 to 130°C.

Claim 18 (Previously Presented): The sheet or film as claimed in claim 13, wherein the binder has a glass transition temperature in a range of from 50 to 130°C.

C-1

Claim 19 (Previously Presented): The sheet or film as claimed in claim 13, wherein the binder has a glass transition temperature in a range of from 60 to 130°C.

Claim 20 (Previously Presented): The sheet or film as claimed in claim 13, wherein the binder comprises an ethylenically unsaturated member of the group consisting of polyesters, polyethers, polycarbonates, polyepoxides and polyurethanes.

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Claim 21 (Previously Presented): The sheet or film as claimed in claim 20, wherein the binder comprises an ethylenically unsaturated member of the group consisting of polyethers, polycarbonates, polyepoxides and polyurethanes.

Claim 22 (Previously Presented): The sheet or film as claimed in claim 13, wherein the binder has a viscosity in a range of from 0.02 to 100 Pas at 140°C.

Claim 23 (Previously Presented): The sheet or film as claimed in claim 13, wherein the radiation-curable composition is curable by a free-radical or ionic mechanism.

Claim 24 (Previously Presented): The coated molding as claimed in claim 12, wherein the coated molding is a motor vehicle part.

C-2

Claim 25 (New) The sheet or film as claimed in claim 13, wherein the thermoplastic interlayer comprises polymethyl methacrylate.

Claim 26 (New) The sheet or film as claimed in claim 13, further comprising an adhesive layer in contact with the at least one substrate layer opposite the thermoplastic interlayer.

Claim 27 (New): A self-supporting, radiation-curable, composite layered sheet or film comprising

at least one substrate layer,

one outer layer, and

a coloring interlayer between the at least one substrate layer and the outer layer,

wherein

the at least one substrate layer comprises a thermoplastic polymer selected from the group consisting of polymethyl methacrylates, polybutyl methacrylates, polyethylene terephthalates, polybutylene terephthalates, polyvinylidene fluorides, polyvinyl chlorides, polyolefins, polyamides, polycarbonates, acrylonitrile-butadiene-styrene (ABS) polymers, acrylic-styrene-acrylonitrile (ASA) copolymers, acrylonitrile-ethylene-propylene-diene-styrene copolymers (A-EPDM), polyether imides, polyether ketones, polyphenylene sulfides, polyphenylene ethers and mixtures thereof; and

the outer layer comprises a radiation-curable composition comprising a binder having a glass transition temperature of more than 40°C.

Claim 28 (New): A method of making a radiation-curable composite layered sheet or film, the method comprising

extruding a radiation-curable composition comprising a binder having a glass transition temperature of more than 40°C; and

producing the film or sheet of claim 27.

Claim 29 (New): A coated molding obtainable by a process comprising
coating the sheet or film of claim 27 on a molding; and
curing the outer layer of the coated sheet or film by means of radiation.

Claim 30 (New) The sheet or film as claimed in claim 27, further comprising an adhesive layer in contact with the at least one substrate layer opposite the coloring interlayer.

Claim 31 (New): The method of claim 8, wherein the radiation-curable composition is water-free and solvent-free during the extruding.

Claim 32 (New): A method of making a radiation-curable composite layered sheet or film, the method comprising
co-extruding at least one substrate layer and one outer layer, wherein
the outer layer during the co-extrusion comprises a water-free and solvent-free
radiation-curable composition comprising a binder having a glass transition temperature of
more than 40°C.
